

The background features a dark blue gradient with three distinct wavy layers. The top layer is a lighter shade of blue, the middle layer is a medium shade, and the bottom layer is a darker shade. These waves create a sense of depth and motion.

UX/UI

USER EXPERIENCE & USER INTERFACE

Ryan Collins

EVERYONE CAN BE GREAT AT UX DESIGN

Today's lecture is for anyone who designs software products as part of their work. You may be a full-time designer, a UX professional or a web developer and programmer in general.

My goal is to improve your products and help you to serve your user's needs better, and make your customers more likely to return.

In this course we will mostly focus on websites, however UX also pertains to mobile apps, web apps, and some of the desktop applications you use on the day to day.

UX

UX is an acronym that stands for User eXperience, the study of interaction between users and a system.

Our goal is to make a system (website) easy to interact with from the user's point of view



EMPATHY

For UX, you need empathy to understand your users' needs, goals and frustrations. You need objectivity to look at your product with fresh eyes, spot flaws, and fix them.

User testing is essential, AKA `feedback` will reveal flaws you never imagined were even there. Talk to users, in our case visitors to your site, the earlier the better, as it's much easier to fix things in the beginning than in the end.

With this foundation and way of thinking, paired with empathy and objectivity, you can learn everything else it takes to be great at UX!

LEARNING POINTS

- keep it simple, don't reinvent the wheel
- deliver valuable features
- don't chase others, sometimes less, is more!

For example, when you first start on your website design methodology, don't aim to recreate FaceBook, start first with a simple blog, then work up to making your stellar site as you learn more, and are introduced to new technologies

CASE POINT

As an example, an airplane cockpit is complicated, because it needs to be

- Be weary of making complex products
- Don't follow trends, focus on what the user needs
- Complexity doesn't always mean bad UX!

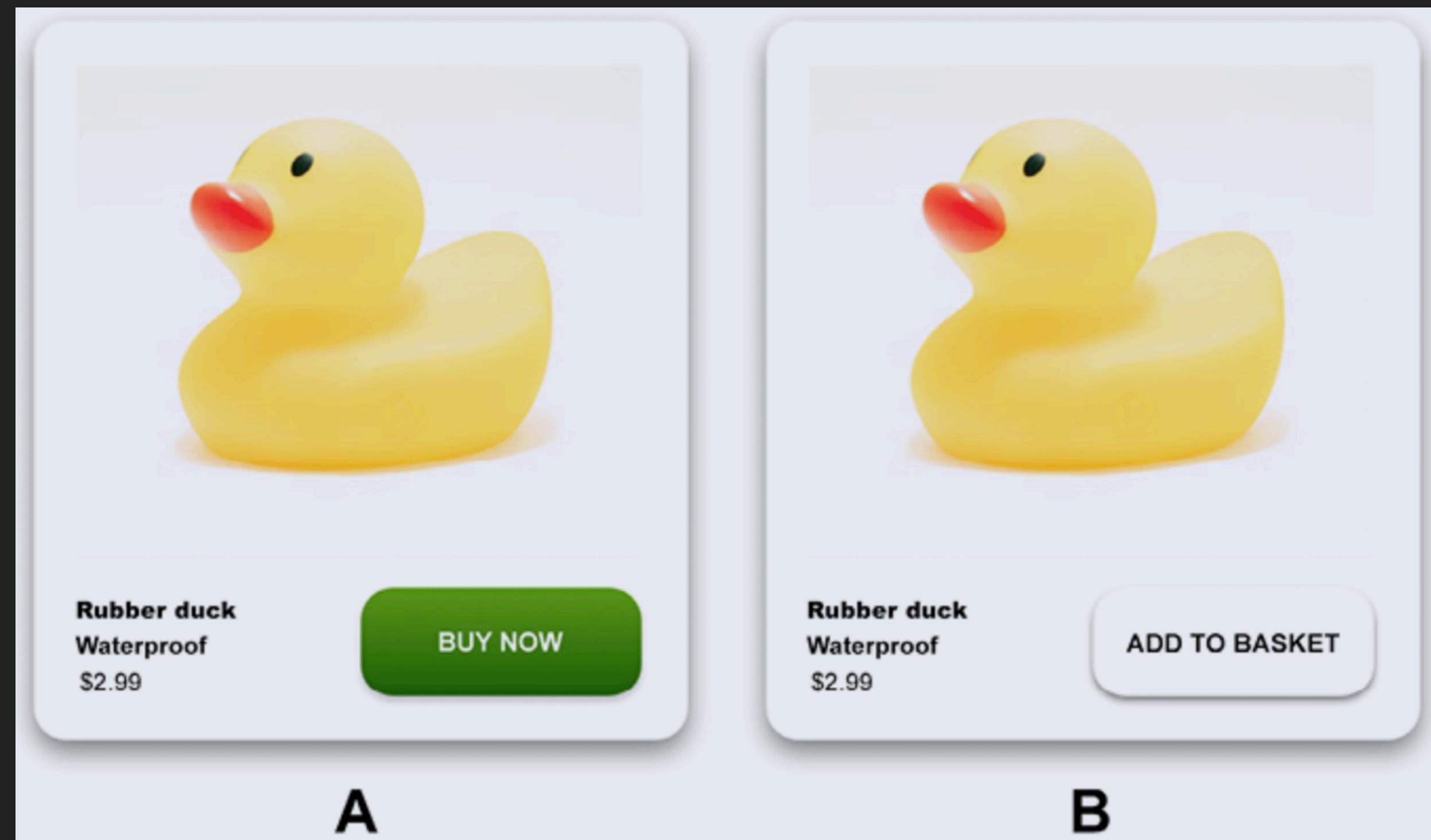


A/B TESTING

You can learn a great deal from user feedback, with A/B testing (where you compare two designs) and multivariate testing (Where you change multiple elements), are great ways to gather results

Example:

- Use A/B testing to see which design performs better
- A/B testing works well with distinctly different designs.



TEST WITH REAL USERS

- These fundamentals don't really mean anything unless you test with real people, and it's ok to make your website and put it out there for your friends, family and co-workers to give you some live feedback.
- They will naturally tell you what they like and don't like, and if you utilize this information (free info), you can make small incidental changes to your product, that will take it to the next level.

Side note: it is never too early for testing, you can show previews of your prototype, even a paper prototype, can yield valuable insights.

TESTING METHODS

- Guerrilla testing: informal, cheap, rapid
- Lab tests: performed in a controlled condition, for example, on a variation of mobile devices, screen sizes
- Remote testing: performed unmoderated, where the user is using their own devices, for example analytics.

Very small test groups, 10 people or less can provide exceptional insights. You can get a lot of quality feedback.

- Test early, with real users within your target audience
- Test with a diverse group, different ethnicities, ages, genders
- Use a small group to get huge benefits

NOBODY CARES ABOUT YOUR BRAND

I don't mean brand in the sense of visual identity, a good logo, word mark or tagline is great.

The word brand over the last 10 years or so has come to allude to a company, or represent the entire personality of a corporation or product. It's seen as the "feeling" of interacting with products, and services.

The issue with this approach, we already have a discipline for this! UX

Don'ts:

- Unreadable typefaces: Just use native system font stacks.
- Splash screens: Just show the site
- Unreadable contrast ratios: use a good color pallet
- Humour: just don't, you want people to take you seriously.



TOPOGRAPHY

Typography helps to create a visual hierarchy that can guide users through your product. Your site should have a good visual flow.

A good rule of thumb I have always used, is that you have about 5 seconds, to capture a visitors attention, if you fail, they will just leave and more then likely, never come back.

- Don't use more than two typefaces
- Use weights (italics), rather than switching typefaces
- Using to many variation creates “noise”, increasing the effort of the user, visitor
- Use one typeface for headings and titles

FONTS

Chances are, at some point you have visited a webpage on your computer or mobile device, whether it's Google fonts, Typekit, or another from a global content delivery network(CDN)

A CDN consists of multiple points of presence (PoPs) in various locations, each consisting of several edge servers that cache assets from your origin, or host server



Content Delivery Network (CDN)

FONTS CONT..

If your user is on a mobile device, phone or desktop, Windows, Mac (or Linux), they have beautiful, highly readable fonts already installed.

The “system font stack” is a CSS rule that tells browsers to render type in the native system typeface.

Sans-serif typefaces like Helvetica or Futura, most modern sites use one of the three most common styles

- font-family: -apple-system, BlinkMacSystemFont, avenir next, avenir, segoe ui, Helvetica Neue, helvetica, Ubuntu, roboto, noto, arial, sans-serif;

TYPE SIZE

By altering type size we can show a user the most relevant information first.

You can also use type weight, instead of scale, for example bold, regular and light typefaces,

having a similar effect as altering type size, without increasing demand on screen space.

Three different weights, all the same size:

- Type size and weight can indicate importance
- Use at least two, but no more than three
- Think about which information is most important



Hotel + Breakfast

Turin, Italy

3 days left

BOOK NOW

DEFAULTS

Visitors to your site will most likely be reading a lot of information on your site, so how big should it be? Most browsers nowadays allow users to scale content, switching to reading mode, and apply system wide accessibility settings. As a rule of thumb, you want to set the “default” type size.

Body copy is usually set in 16px, with a 1.5 line height and auto or default spacing.

```
body {
```

```
  Font-size: 16px;
```

```
  Line-height: 1.5;
```

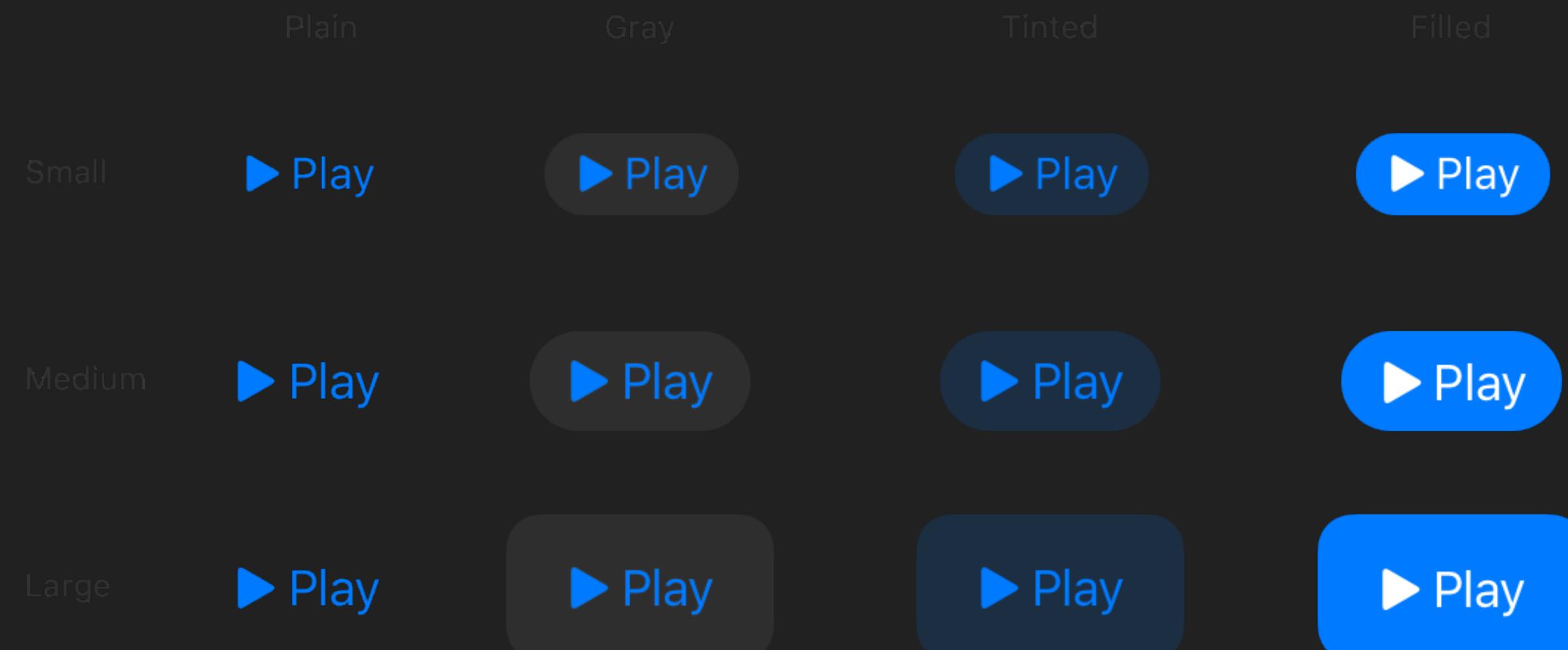
```
}
```

INTERFACE ITEMS

When a user needs to interact with your site, a flat design may make it hard for them to discover which parts of your site can be interacted with, for example;

We can make buttons obvious, and instantly familiar. The human visual system is tuned to see depth , buttons for example in real life look pushable, they maybe raised, have round corners, or shadow effects.

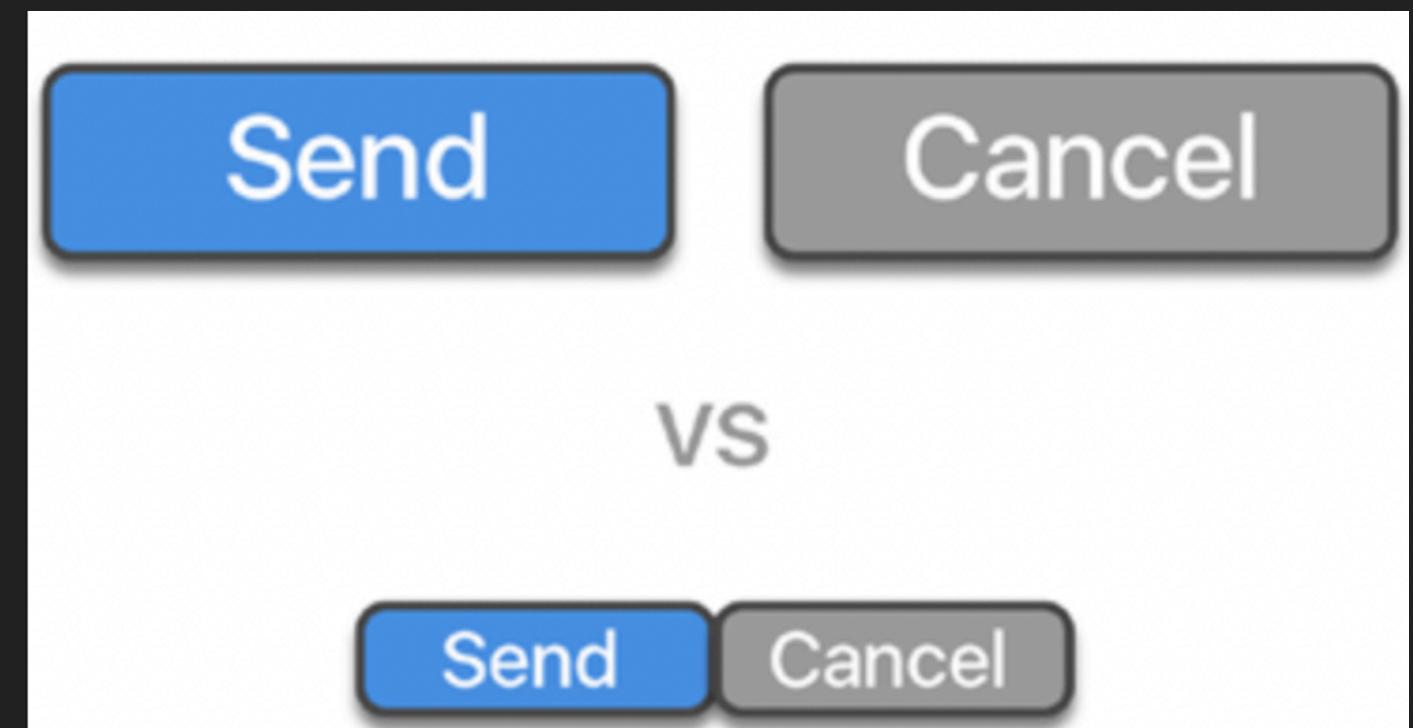
- Make buttons look like buttons



GROUPS AND FUNCTIONS

You want to make buttons the right size, and group them together by functions, for example when submitting a form or data into a website, a SSO or sign on option.

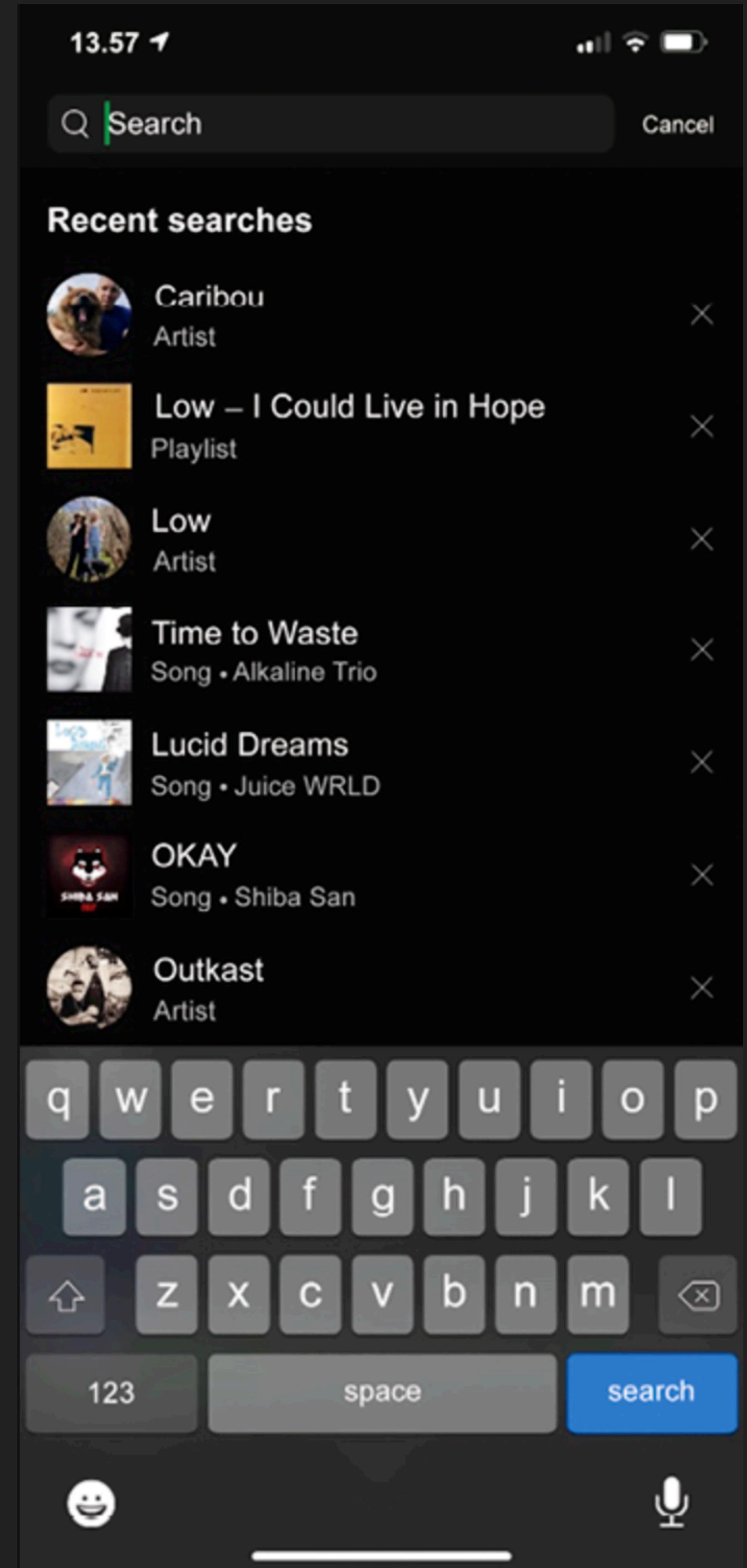
- Make buttons big enough to click easily
- When on a small screen, button need to be bigger
- Don't place items close together



SEARCH

Search should be a text field, with a button or icon labeled “search”

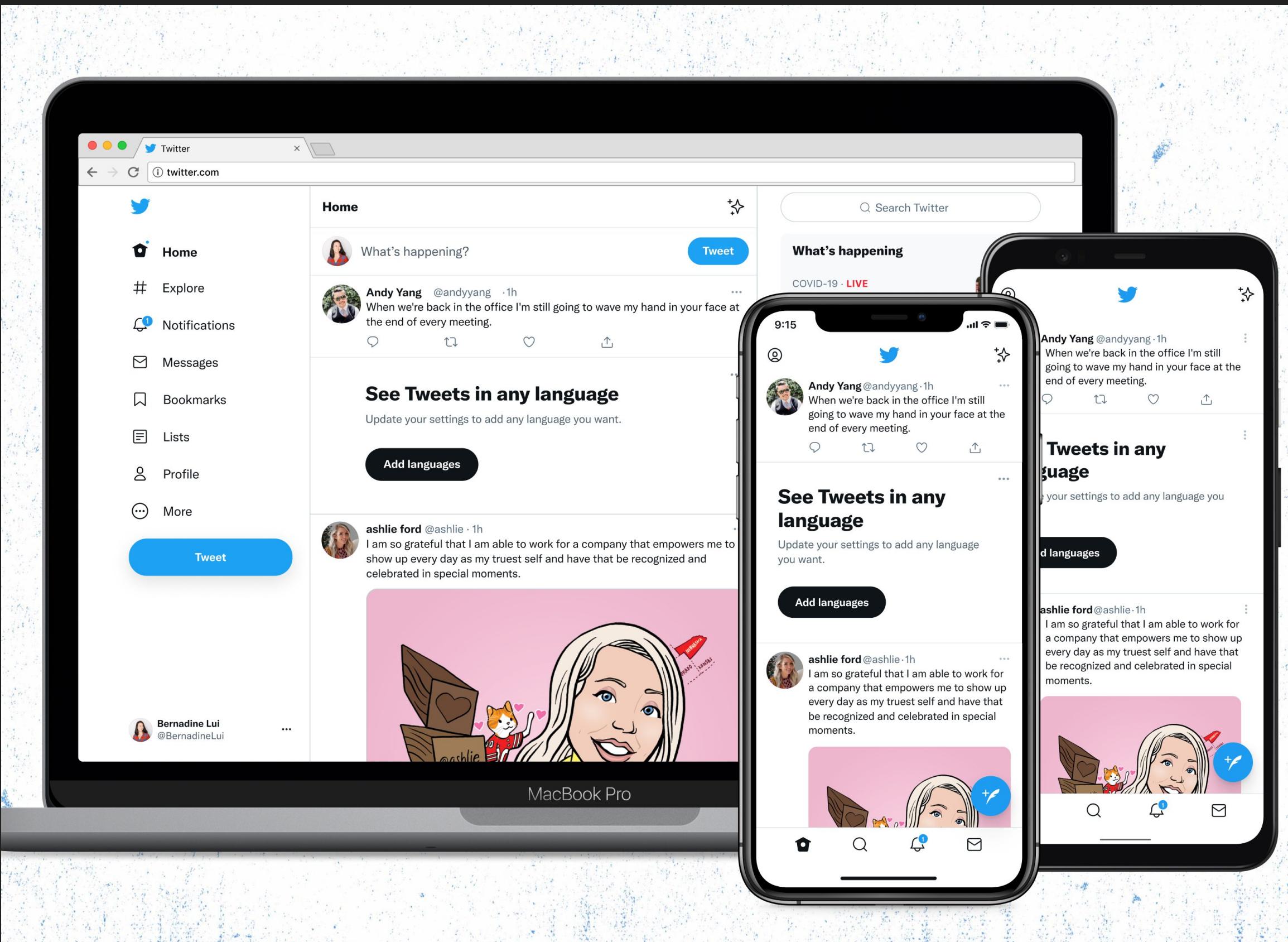
- Search should be a text field with a search button
- Only use a magnifying glass icon
- Move focus to search field when tapped



OPTIMIZE FOR MOBILE

The experience of using mobile apps, or in this case a mobile-optimized website, is either a really great experience, or extremely frustrating.

- Don't force users to scroll horizontally



NAVIGATION

Navigation is important in UX design because it allows visitors to move through and interact with the content.

Good navigation should be simple, easy to understand, and enable visitors to find information quickly, for example your contact page.

Contrary to application design, for websites, you should always include a hamburger menu.

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Teaching programming, development, React / Next.js



LINKS

Make links look like links, hyperlinks are the basis of the web, and in original browsers were blue, italic and underlined.

Today, we use styling to help the user discover links, highlighting while hovering, or underlining.

Users on touch screen devices don't have the hover state, so we can use colouring adaptation, to signify that the content is in fact clickable.

- Make links look like [links](#)
- Don't make non-links look like links

CONTENT

Sometimes our site may have an area where we want to express a list of options, or points of interest. In this case, we want to split up the content, in easy to parse short sections.

- Group related items into sections

All Buy Again Gift Ideas Gift Cards Registry Health & Household Beauty & Personal Care Coupons Browsing History Ryan's Store Home Improvement Home Sports & Outdoors Books Grocery Pet Supplies

Gifts Wish List Gift Cards Amazon Prime Best Sellers Most Wished For

Who are you shopping for?

GIFT CARDS WOMEN MEN TEENS KIDS 8-12 KIDS 4-7 BABIES

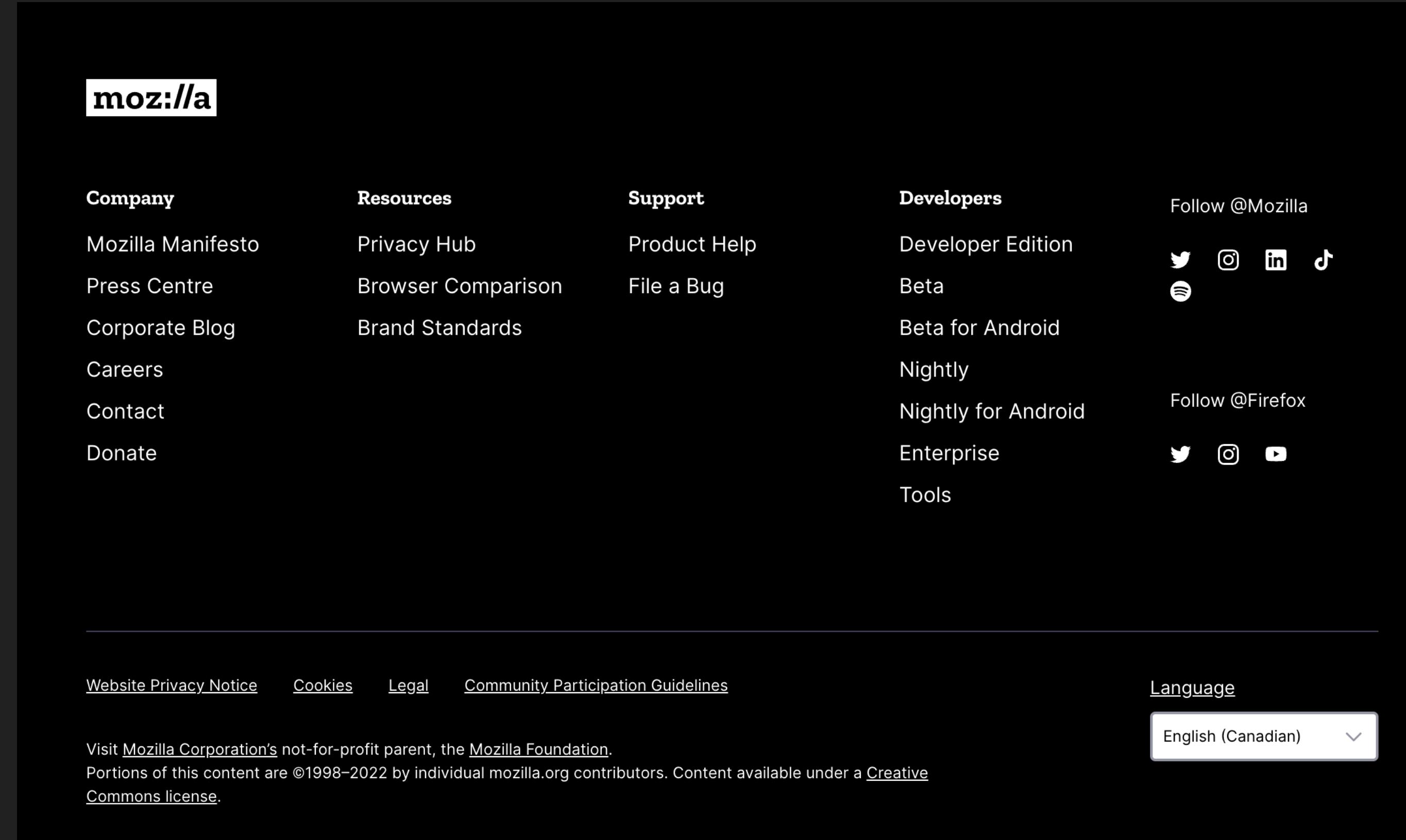
Gifts for Everyone

Price All prices Deals Gift Wrap Available

 \$ <input type="button" value="Buy"/>	 \$ <input type="button" value="Buy"/>	 \$ <input type="button" value="Buy"/> THE KEG STEAKHOUSE+BAR	 \$ <input type="button" value="Buy"/>	 \$ <input type="button" value="Buy"/>
Amazon.ca eGift Card ★★★★★ 24,287	Amazon.ca eGift Card ★★★★★ 24,287	The Keg Steakhouse Gift Card - Email Delivery ★★★★★ 188	Amazon.ca Print at Home Gift Card ★★★★★ 3,575	Amazon.ca eGift Card ★★★★★ 24,287

FOOTER

Repeat menu items in the footer. Your site's navigation is at the top, but the user has scrolled to the bottom view, some devices have a tap the top bar will scroll the page back up, there is no need to provide a “back to top” function or hovering button, instead repeat menu items in the footer.



The image shows a dark-themed footer section from the Mozilla website. At the top left is the Mozilla logo, "moz://a". Below it are five main categories: Company, Resources, Support, Developers, and a social media section. The Company section includes links to Mozilla Manifesto, Press Centre, Corporate Blog, Careers, Contact, and Donate. The Resources section includes Privacy Hub, Browser Comparison, and Brand Standards. The Support section includes Product Help and File a Bug. The Developers section lists Developer Edition, Beta, Beta for Android, Nightly, Nightly for Android, Enterprise, and Tools. To the right of the Developers section is a "Follow @Mozilla" link with icons for Twitter, Instagram, LinkedIn, TikTok, and Spotify. Below the main categories is a horizontal line. At the bottom left are links to Website Privacy Notice, Cookies, Legal, and Community Participation Guidelines. At the bottom right are Language and Translation dropdown menus, currently set to English (Canadian).

Company	Resources	Support	Developers	Social Media
Mozilla Manifesto	Privacy Hub	Product Help	Developer Edition	Follow @Mozilla
Press Centre	Browser Comparison	File a Bug	Beta	
Corporate Blog	Brand Standards		Beta for Android	
Careers			Nightly	
Contact			Nightly for Android	
Donate			Enterprise	
			Tools	

[Website Privacy Notice](#) [Cookies](#) [Legal](#) [Community Participation Guidelines](#)

Visit Mozilla Corporation's not-for-profit parent, the [Mozilla Foundation](#). Portions of this content are ©1998–2022 by individual mozilla.org contributors. Content available under a [Creative Commons license](#).

Language [English \(Canadian\)](#)

ICONS

Icons are great because they enable your users to immediately identify an inter-actable link. For example social media links, which should auto open into a new tab. Icons should be consistent.

- Use a consistent style
- Don't take shortcuts by including disparate icons
- Take time to build a coherent icon style
- Don't use obsolete icons
- Don't mix and match icons to make new icons
- Don't use text on top of icons
- You can give icons a text label, like share, upload



INPUT

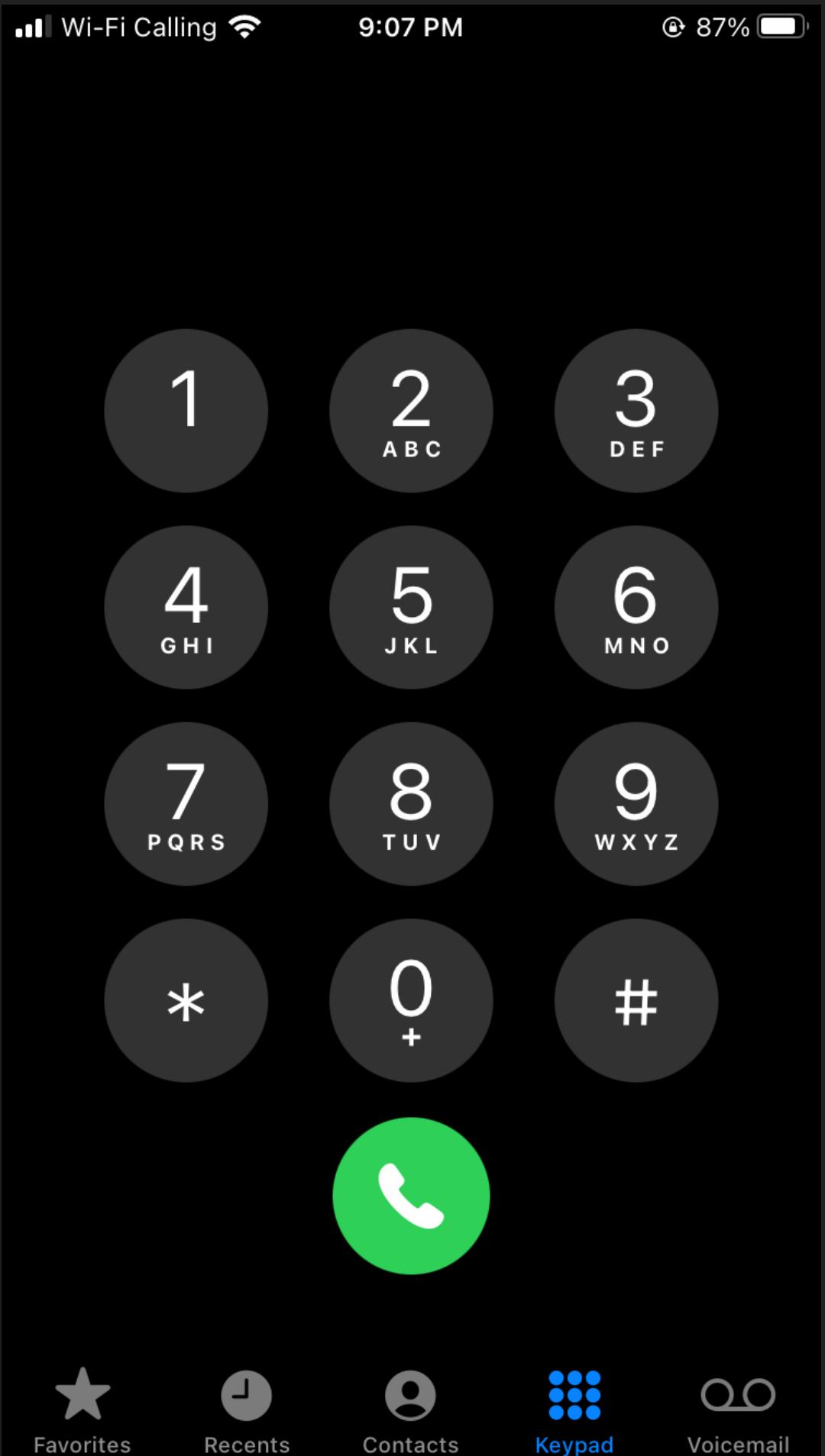
Use device native input where possible. If you're using a phone or mobile device, you can use the devices built-in “phone” app, that has a large numeric keypad.

<label for="phone">Your telephone number:</label>

<input type="tel" id="phone" name="phone">

This will show the telephone keypad in both iOS and Android browsers

- Using device-native input, means users have one less thing to learn



Notice the icons at the bottom are easy to understand, and you know you can click them

INPUT FIELDS

Pick the right size for input fields. Forms need to be as easy as possible, you should design forms to be as easy as possible for the user to complete.

A common mistake is to provide a text area that is way too big, or way too small. HTML makes it very easy to specify a single-line input field:

```
<label for="fname">First name:</label>
```

```
<input type="text" id="fname" name="fname"><br><br>
```



The image shows a simple HTML form element. It consists of a label "First name:" followed by an empty text input field. The input field has a thin, light gray border and a white background. The overall style is clean and minimalist, typical of modern web design.

ANIMATIONS

Have you ever had a web page load, but advertising elements (or custom fonts) loads from a different or slower server? As the page loads, the ads or fonts moves the page around in a weird way, and you click the wrong part of a page?

This is solved by testing, and introducing placeholders to serve dedicated space for ads, or slow loading elements, preventing the page from moving as it loads.

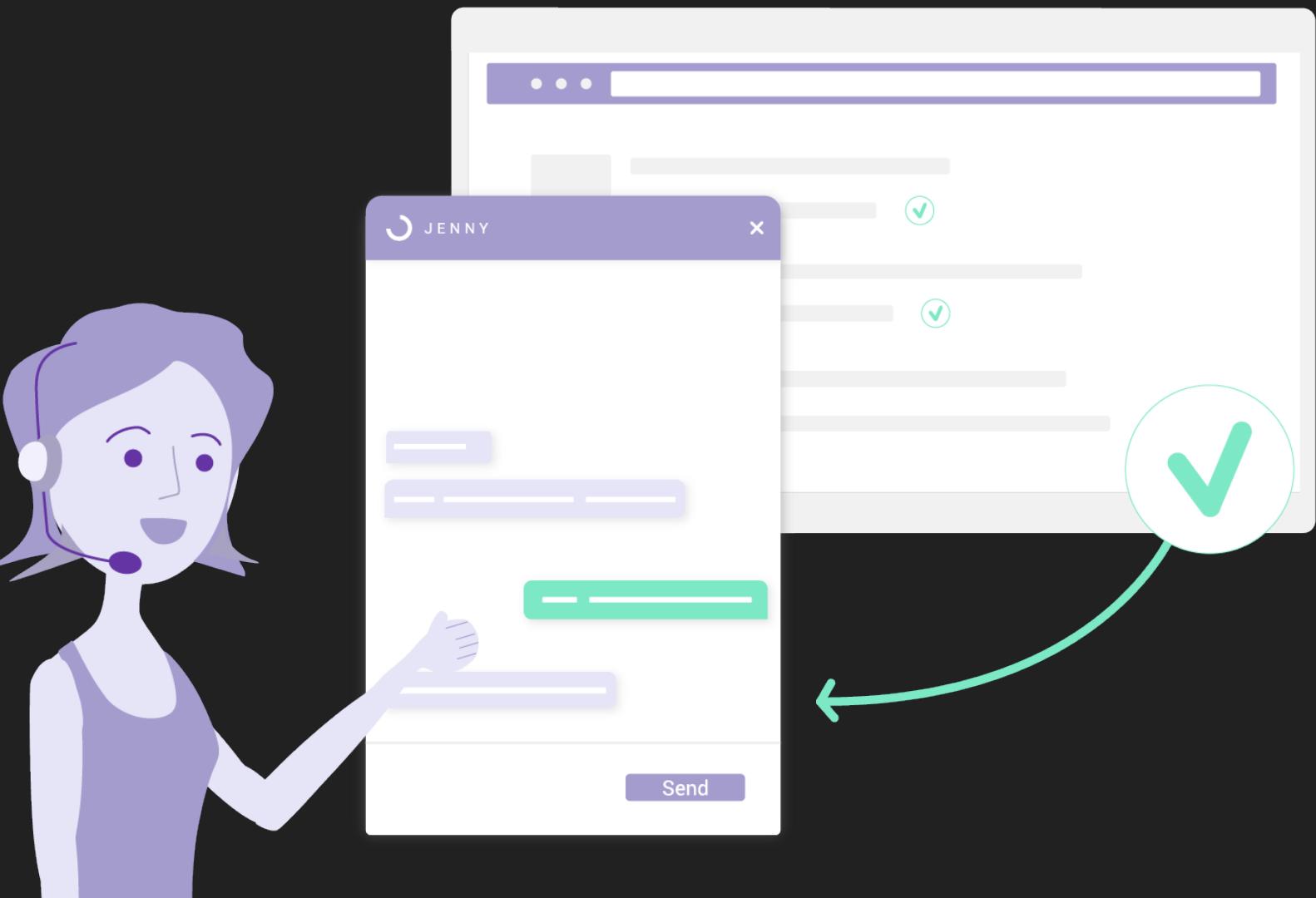
- Always keep UI control elements static
- Micro-animations are generally fine, just keep them short and subtle
- Test how your interface appears on a range of devices

CHAT BOTS

I'll just come right out and say this, chat bots are a bad idea.

These chat bubbles in the bottom of pages or pop up elements on banking or insurance sites. A CUI by themselves isn't a bad thing, the problem is, what's on the other end? Who are you talking to? If you absolutely have to use them, try the following;

- Have a human on the other end
- Give users a realistic time for them to get attention
- Let the user know when someone is typing



FORMS

If your forms are good, your product is good, that's a general rule. Almost every kind of software features a form (a page with inputs for text)

Sometimes they can be frustrating, but if you make your forms and data entry work well, your customers will thank you.

Some rules for forms, don't ask for information you don't need.

Ideal situation, a user should be able to join your product or get info from you with:

- Email and or password (if needed for login)
- Name or username (if required for login)
- Explain why you need the info, if you need it

The form is a dark-themed input field with a blue border. It contains the following elements:

- A title "Contact Me" at the top center.
- Two input fields side-by-side: "Name" and "E-mail".
- A larger input field labeled "Message" below them.
- A blue "Send Message" button at the bottom right.

PAYMENTS

At some point in your journey, you may be required to accept payments for a product or service.

- Only collect what you need: card number, expiry date, CVV
- Sometimes you may need a postal code depending on the provider
- Allow the user to type the full card number in multiples of four digits

The image shows a payment interface with the following sections:

- 2. Payment & Address**
- Express Checkout**
- PayPal** button
- Credit/Debit Card** section:
 - Credit/Debit Card input field
 - Icons for VISA, MasterCard, American Express, and Discover
 - MM / YY input fields
 - CVV Code input field
- Billing Address** section:
 - United States of America dropdown menu
 - Zip Code input field

SPINNERS

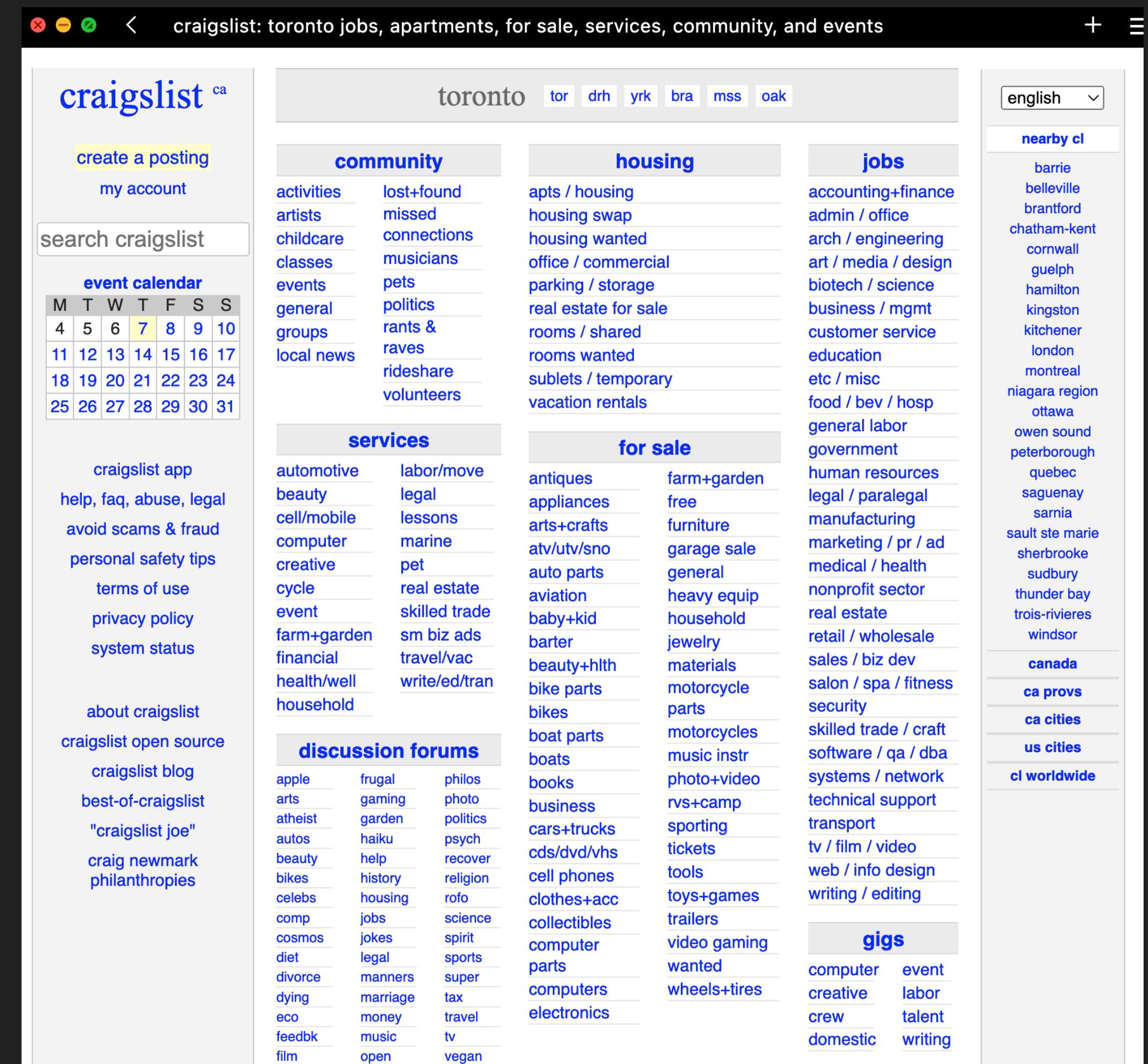
Show a “spinner” if a task will take a long time, a spinner gives less information than a progress bar, but lets the user know that something is happening, and if something goes wrong, make the spinner stop, then show an error.

- Use a spinner when your product loads (slowly)
- Use animation to show something is happening (processing)
- Stop the spinner and or remove it upon error



FLAT DESIGN

If you absolutely must, make interactive elements obvious. Often referred to as brutalist architectural style. Good example, (Craigslist lol)



NON FLAT DESIGN

www.kijiji.ca

kijiji Search for anything... All categories City of Toronto, ... Post ad

Buy & Sell Cars & Vehicles Real Estate Jobs Services Pets Community Vacation Rentals kijiji AUTOS ?

Join the millions of Canadians who find and list their homes on Kijiji.

List your space Find a new home

Homepage Gallery ? Your Ad here See All AdChoices ▶

Purebred Bulldog... I'm selling a mint heavily... PRP-Medical Clinic-Toronto FULL BODY WAXING &... 1965 FORD CUSTOM 2... PRP - Toronto - Medical Clinic shower glass Please Con...

\$2,500.00 \$490.00

Popular on Kijiji

Free Stuff >

Wanted Ads >

Swap / Trade >

Popular in Autos in City of Toronto

Browse all Autos in City of Toronto

ASSESS A CAR'S PRICE WITH INSTANT PRICE ANALYSIS Start now kijiji AUTOS

Cars & Trucks

Classic Cars

RV's, Campers & Trailers

LABELS

Write clear labels for controls,

- Screen readers rely on labels
- Field labels benefit all users
- Placeholder labels disappear

Use breadcrumb navigation, a tried and tested control

Home > products > Apparel > Hoodies

Your full name

Cancel **Save**



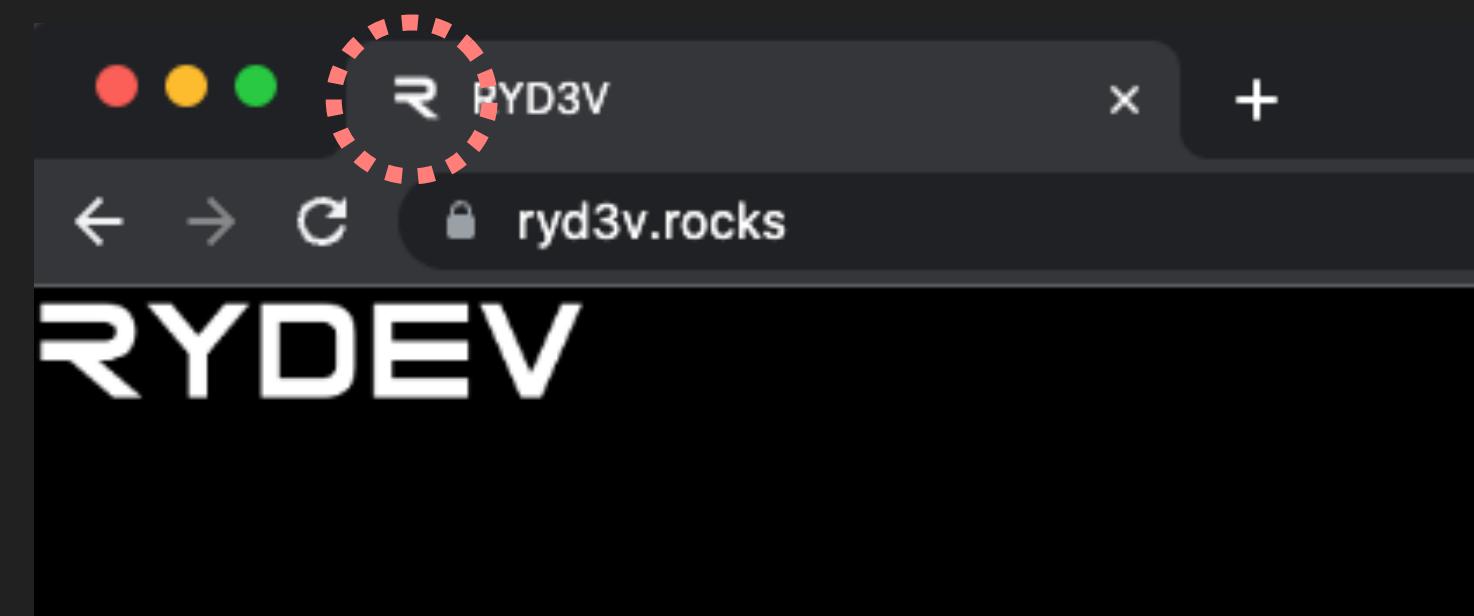
Your name



FAVICON

A bold icon or letter is usually sufficient, and at least 16px in size so it's legible. Transparency, especially since nobody wants to see a white square in their tab, unless your logo is a white square.

- A favicon.ico at 32px square for legacy browsers
- A SVG icon, light and dark for modern browsers
- A 180px PNG for Apple devices
- A webapp manifest with with 192 and 512px PNG icons



TERMINOLOGY

Be consistent with terminology. Also think about verbiage, as the wrong word selection can be unwelcome, you want clear precise, content

- If you call your e-commerce shopping cart a “cart” use cart everywhere
- If you call a users profile page “profile”, call it profile everywhere

If you mix up the verbiage, you can confuse your site visitors, causing stress.

It's ok to obsess over the right terminology.

- Use consistent terms across your product (or website)

Example

Use “sign in” and “sign out”, not “log in” “log out”

EXPERIENCE

Give users the experience they expect. Many developers believe that they shouldn't copy, don't copy other's designs.

In UX this is opposite of best practice, users spend most of their time on sites, or using a product with similar design cues. For example, style guides exist now for Google, and Apple, to ensure the best user experience while using an app, or visiting a site. It is ok, to find similarity in your design.

Build upon established patterns, colours, buttons, topography.

Example <https://developer.apple.com/design/resources/>

DOES IT WORK ON MOBILE?

Let me just get this right out in the air, your site absolutely must work on mobile. In 2021, mobile browsing accounted for more than 56% of all browsing traffic, world wide.

Responsive design, doesn't even get mentioned anymore, as it's just a given. Your site has to be responsive to all devices and screen sizes.

Most modern frameworks, make this simple, and we will checkout one such framework a little later.

Responsive design just means that your UI will adapt to different sizes automatically, and you don't have to build a separate “mobile friendly” version



“A designer knows they have achieved perfection not when there is nothing left to add, but when there is nothing left to take away”

- Antoine de Saint-Exupéry

PLANNING OUT YOUR WEBSITE

First you need some ideas. What is your website for?

1.What is your website about?

2.What information are you providing about the subject?

3.What should your website look like?

Let's look at a few online apps, to help you sketch out your first design

<https://dribbble.com>

<https://sneakpeekit.com>

<https://balsamiq.com>

<https://www.codeply.com>

Q&A